

CLASSIFICATION:

**UNCLASSIFIED**

EXHIBIT R-2, RDT&E Project Justification						DATE: <b>February 2004</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E,N / BA-7</b>		PROGRAM ELEMENT NUMBER AND NAME <b>0305149N/COBRA JUDY</b>			PROJECT NUMBER AND NAME <b>4021/Rapid Technology Transition</b>		
COST (\$ in Millions)	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost	50.510	68.583	80.694	124.804	137.155	122.581	80.721
RDT&E Articles Qty	0	0	0	0	0	0	0

**(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:**

## A. (U) Mission Description

Cobra Judy Replacement is a program that has been transferred from the Air Force to the Navy, per an Office of the Secretary of Defense (OSD) Milestone A Acquisition Decision Memorandum dated 6 August 20002. Current FY04 funding represents approximately half of the total budget.

Cobra Judy funds will replace the current U.S. Naval Ship (USNS) Observation Island which has become unsustainable and due to leave service no later that 2012. This program will fund the development of a single ship-based radar suite for world wide technical data collection against ballistic missiles in flight. Prior funding provided instrumentation of quality radar data and imaging, detailing threat assessment of ballistic missile development, testing and range augmentation and monitored or verified specific aspects of United States treaties with other countries. To avoid vulnerabilities in our national security it is imperative we replace the current capability of Cobra Judy in a timely manner to prevent any potential gap in coverage. Prior studies have indicated that a ship-based radar replacement is the most timely and cost effective solution.

The Cobra Judy Replacement program has successfully reached Milestone B/C since the last submission, resulting in an approved Acquisition Strategy. The current CAIG estimate is consistent with the approved Acquisition Strategy. The PB 05 submission reflects the current CAIG estimates.

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### B. Accomplishments/Planned Program

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	33.125	61.189	71.145
RDT&E Articles Quantity	0	0	0

#### DESIGN AND RISK REDUCTION

##### Planned:

- Complete critical designs for prime mission (X-band and S-band) radars

##### Accomplishments:

- Completed Milestone B/C
- Awarded key contract for X and S-band radars

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	1.297	2.590
RDT&E Articles Quantity	0	0	0

#### SHIPBUILDING / CONVERSION

##### Planned:

- Complete ship selection studies
- Contract for ship and integration
- Initiate ship construction

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Exhibit R-2, RD TEN Project Justification  
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APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N /</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0305149N/COBRA JUDY</b>	PROJECT NUMBER AND NAME <b>4021/Rapid Technology Transition</b>												
<b>B. Accomplishments/Planned Program (Cont.)</b>														
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 33%;"></th><th style="width: 16.5%;">FY 03</th><th style="width: 16.5%;">FY 04</th><th style="width: 16.5%;">FY 05</th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td style="text-align: center;">9.950</td><td style="text-align: center;">3.658</td><td style="text-align: center;">4.175</td></tr><tr><td>RDT&amp;E Articles Quantity</td><td style="text-align: center;">0</td><td style="text-align: center;">0</td><td style="text-align: center;">0</td></tr></tbody></table>				FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost	9.950	3.658	4.175	RDT&E Articles Quantity	0	0	0
	FY 03	FY 04	FY 05											
Accomplishments/Effort/Subtotal Cost	9.950	3.658	4.175											
RDT&E Articles Quantity	0	0	0											
<div style="border: 1px solid black; padding: 5px;"><b>SYSTEM ENGINEERING</b> Planned:<ul style="list-style-type: none"><li>- Requirements development and analysis</li><li>- Development of specifications</li><li>- Complete designs for non-prime mission equipment (C4I, data handling, classified mission equipment)</li></ul></div>														
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 33%;"></th><th style="width: 16.5%;">FY 03</th><th style="width: 16.5%;">FY 04</th><th style="width: 16.5%;">FY 05</th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td style="text-align: center;">7.435</td><td style="text-align: center;">2.439</td><td style="text-align: center;">2.784</td></tr><tr><td>RDT&amp;E Articles Quantity</td><td style="text-align: center;">0</td><td style="text-align: center;">0</td><td style="text-align: center;">0</td></tr></tbody></table>				FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost	7.435	2.439	2.784	RDT&E Articles Quantity	0	0	0
	FY 03	FY 04	FY 05											
Accomplishments/Effort/Subtotal Cost	7.435	2.439	2.784											
RDT&E Articles Quantity	0	0	0											
<div style="border: 1px solid black; padding: 5px;"><b>PROGRAM MANAGEMENT SUPPORT</b> Planned:<ul style="list-style-type: none"><li>- Program planning, assessment of technical alternatives, risk identification and mitigation.</li><li>- Cost and schedule development and execution</li></ul>Accomplishments:<ul style="list-style-type: none"><li>- Completed milestone documentation in preparation for Milestones B/C</li><li>- Completed Milestones B/C</li></ul></div>														
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="width: 33%;">Total Cost:</td><td style="width: 16.5%; text-align: center;">50,510</td><td style="width: 16.5%; text-align: center;">68,583</td><td style="width: 16.5%; text-align: center;">80,694</td></tr></table>			Total Cost:	50,510	68,583	80,694								
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Exhibit R-2, RD TEN Project Justification  
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APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E,N / BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME <b>0305149N/COBRA JUDY</b>	PROJECT NUMBER AND NAME <b>4021/Rapid Technology Transition</b>	
<b>C. (U) PROGRAM CHANGE SUMMARY:</b>			
Funding:	FY 2003	FY 2004	FY 2005
Previous President's Budget:	51.061	69.369	81.000
President's Budget: (PB 05 Controls)	50.510	68.583	80.694
Total Adjustments	-0.551	-0.786	-0.306
Summary of Adjustments			
FFRDC Reduction	0.000	-0.589	0.000
Economic Assumptions	-0.551	-0.197	-0.306
Subtotal	-0.551	-0.786	-0.306
Schedule:			
Not Applicable.			
Technical:			
Not Applicable.			

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**D. OTHER PROGRAM FUNDING SUMMARY:**

Line Item No. & Name	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	To Complete	Total Cost
P.E. 0303901N									Continuing	Continuing
Details and funding profile for this Program Element is classified.										

**E. ACQUISITION STRATEGY:**

(U) The acquisition strategy calls for leveraging ongoing Navy Ballistic Missile Defense (BMD) radar development, updating existing user interface/communications/data handling equipment designs from a similar operational unit, and purchasing and integrating the mission equipment aboard an appropriate merchant-class hull. System design will be accomplished using in-hand technologies and commercial standards to lower schedule risk and produce a product with the lowest possible life-cycle cost.

**F. MAJOR PERFORMERS:**

Raytheon Company - Sudbury, Massachussettes

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Exhibit R-3 Cost Analysis (page 1)								DATE:				
February 2004												
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NAME AND NUMBER			PROJECT NUMBER AND NAME						
RDT&E, N / BA - 7			0305149N/COBRA JUDY			4021/Rapid Technology Transition						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Dev / Sys Eng												
Prototype Development	CPAF	Raytheon	0.000	26.430	12/04	61.189	TBD	71.145	TBD	Continuing	Continuing	TBD
		PMS 325/CSC	0.000	6.695	03/03	1.297	TBD	2.590	TBD	Continuing	Continuing	TBD
Award Fee												
System Engineering	WX/RX/MIPR	Various	0.000	0.994	03/03	3.658	TBD	4.175	TBD	Continuing	Continuing	TBD
	WX	NSWC DD	0.000	3.165	03/03							
	WX	NSWC CSS	0.000	2.085	03/03							
	WX	NSWC PHD	0.000	0.435	03/03							
	CPFF	JHU/APL	0.000	1.035	03/03							
	WX	NRL	0.000	0.375	03/03							
	WX	SEG	0.000	0.600	03/03							
	GSA	Various	0.000	0.861	03/03							
	C NF	GTRI	0.000	0.400	03/03							
Subtotal Product Development			0.000	43.075		66.144		77.910		Continuing	Continuing	TBD
Remarks:												
Test and Evaluation												
Test and Evaluation												
Subtotal T&E:			0.000	0.000		0.000		0.000		Continuing	Continuing	TBD
Remarks:												
Total Cost			0.000	43.075		66.144		77.910		Continuing	Continuing	TBD

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Exhibit R-3, Project Cost Analysis  
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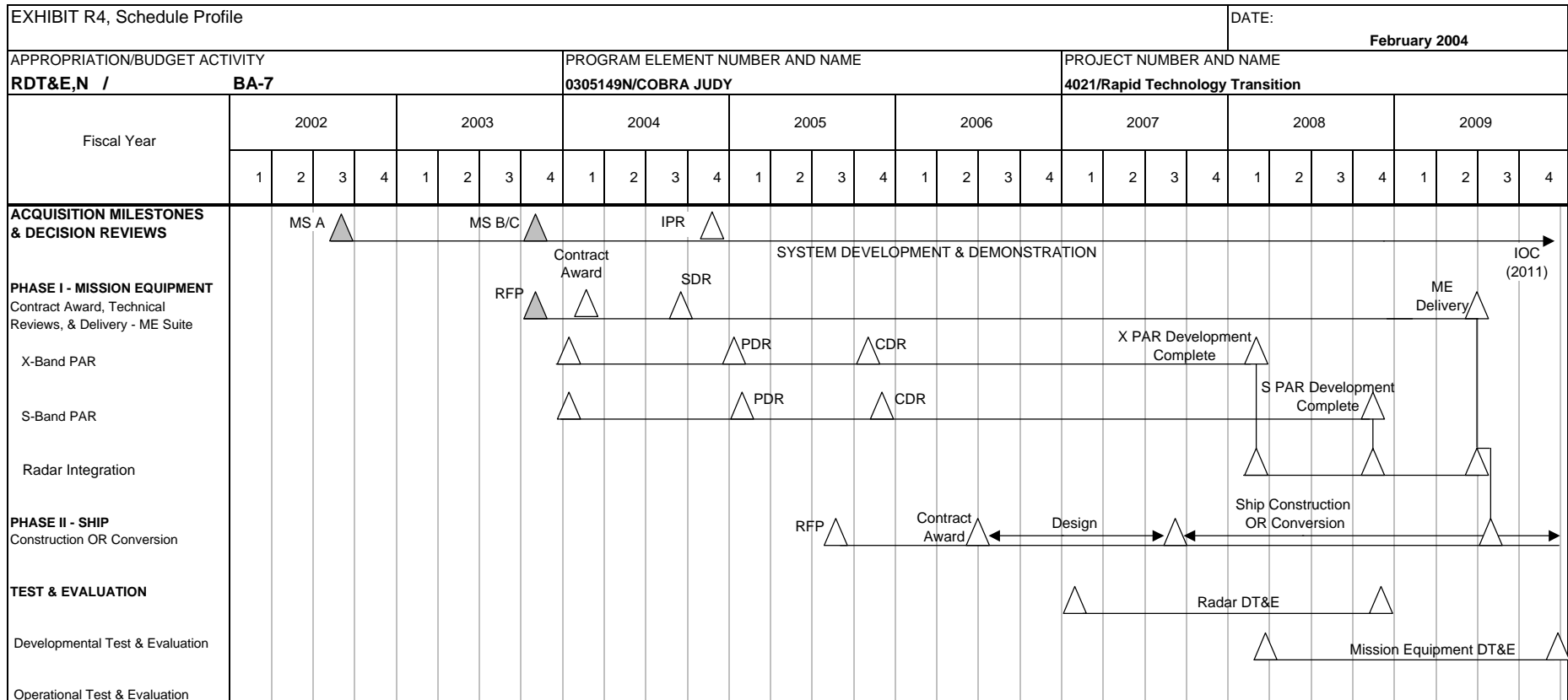
Exhibit R-3 Cost Analysis (page 2)									DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NAME AND NUMBER			PROJECT NUMBER AND NAME						
RDT&E, N / BA-7			0305149N/COBRA JUDY			4021/Rapid Technology Transition						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation												
Operational Test & Evaluation												
Live Fire Test & Evaluation												
Test Assets												
Tooling												
GFE												
Award Fees												
Subtotal T&E			0.000	0.000		0.000		0.000		0.000	0.000	Cont.
Remarks:												
Contractor Engineering	GSA	Various	0.000	0.885	03/03	2.439	TBD	2.784	TBD	Continuing	Continuing	TBD
	GSA	Computer Science Corp	0.000	2.725	03/03	0.000						
	GSA	Systems Planning & Analy	0.000	1.900	03/03							
Government Engineering												
Program Management	GSA	BAE Systems	0.000	1.490	03/03							
	WX/CPFF	Various	0.000	0.385	03/03							
Travel			0.000	0.050	03/03							
Labor (Research Personnel)												
SBIR Assessment												
Subtotal Management			0.000	7.435		2.439		2.784		0.000	12.658	Cont.
Remarks:												
Total Cost			0.000	50.510		68.583		80.694		Cont.	Cont.	Cont.
Remarks:												

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Exhibit R-4a, Schedule Detail						DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT 0305149N/COBRA JUDY				PROJECT NUMBER AND NAME 4021/Rapid Technology Transition			
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
ACQUISITION MILESTONES & DECISION REVIEWS								
Milestone A (MS A)	3Q							
Milestones B/C (MS B/C)		4Q						
Interim Progress Review (IPR)			4Q					
System Development & Demonstration	3Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
MISSION EQUIPMENT								
Request for Proposal (RFP)		4Q						
Contract Award(s)			1Q					
System Design Review (SDR)			3Q					
Delivery								3Q
X-Band Radar								
Contract Award			1Q					
Preliminary Design Review (PDR)				1Q				
Critical Design Review (CDR)				4Q				
Delivery							1Q	
S-Band Radar								
Contract Award			1Q					
Preliminary Design Review (PDR)				1Q				
Critical Design Review (CDR)				4Q				
Delivery							4Q	
Radar Integration								
Delivery							1Q, 4Q	3Q
SHIP								
Request for Proposal (RFP)				3Q				
Contract Award					3Q			
Ship Design					3Q-4Q	1Q-3Q		
Ship Contruction or Conversion						3Q		
Delivery								3Q
TEST AND EVALUATION								
Radar Developmental Test & Evaluation (DT&E)						1Q-4Q	1Q-4Q	
Mission Equipment Developmental Test & Evaluation (DT&E)							1Q-4Q	1Q-4Q

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Exhibit R-4a, Schedule Detail  
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